Applicant: Takeshi Nishi, et al Attorney's Docket No.: 07977-121003 / US3254D1D1

Serial No.: 10/735,885

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## Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

## Listing of Claims

## 1-10. (Canceled)

- 11. (Currently Amended). A liquid crystal electro-optical device comprising:
- a pair of substrates, at least one of said pair of substrates being transparent;
- a light modulating layer interposed between the pair of substrates, said light modulating layer including a liquid crystal, an optically active substance, and a dichroic dye; and electrodes for applying an electric field in a direction parallel with the pair of substrates, wherein a cell thickness d between the pair of substrates is in a range of 1µm<d<10µm.
- 12. (Currently Amended). A method of driving a liquid crystal electro-optical device, said liquid crystal electro-optical device comprising:
  - a pair of substrates, at least one of said pair of substrates being transparent; and
- a light modulating layer interposed between the pair of substrates, said light modulating layer including a liquid crystal, an optically active substance, and a dichroic dye[[;]], wherein a cell thickness d between the pair of substrates is in a range of  $1\mu$ m<d< $10\mu$ m,

said method comprising:

applying an electric field in a direction parallel with the pair of substrates.

- 13. (Currently Amended). A liquid crystal electro-optical device comprising:
- a pair of substrates, at least one of said pair of substrates being transparent;
- a light modulating layer interposed between the pair of substrates, said light modulating layer including liquid crystal molecules, an optically active substance, and dichroic dye molecules; and

electrodes for applying an electric field in a direction parallel with the pair of substrates[[;]],

wherein a cell thickness d between the pair of substrates is in a range of  $1\mu$ m<d $<10\mu$ m, and

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wherein the liquid crystal molecules and the dichroic dye molecules are aligned in the direction parallel with the substrates by the electric field to obtain a light transmission state.

14. (Previously Presented). A display according to claim 13, wherein the dichroic dye molecules are oriented in different directions around the axis that is perpendicular to the substrates to attain a dark state when the electric field is not applied.

15. (Currently Amended). A method of driving a liquid crystal electro-optical device, said liquid crystal electro-optical device comprising:

a pair of substrates, at least one of said pair of substrates being transparent; and a light modulating layer interposed between the pair of substrates, said light modulating layer including liquid crystal molecules, an optically active substance, and dichroic dye molecules[[;]], wherein a cell thickness d between the pair of substrates is in a range of  $1\mu$ m<d<10 $\mu$ m,

said method comprising:

applying an electric field in a direction parallel with the pair of substrates; wherein the liquid crystal molecules and the dichroic dye molecules are aligned in the direction parallel with the substrates by the electric field to obtain a light transmission state.

- 16. (Currently Amended). A method of driving a liquid crystal electro-optical display according to claim 15, wherein said dichroic dye molecules are oriented in different directions around the axis that is perpendicular to the substrates to attain a dark state when the electric field is not applied.
- 17. (New). A display according to claim 11, wherein the liquid crystal has a spiral pitch p in a range of  $1\mu$ m<p<15 $\mu$ m.
- 18. (New). A method of driving a liquid crystal electro-optical display according to claim 12, wherein the liquid crystal has a spiral pitch p in a range of  $1\mu$ m<p<15 $\mu$ m.
- 19. (New). A display according to claim 13, wherein the liquid crystal molecules have a spiral pitch p in a range of  $1\mu$ m<p<15 $\mu$ m.
- 20. (New). A method of driving a liquid crystal electro-optical display according to claim 15, wherein the liquid crystal molecules have a spiral pitch p in a range of  $1\mu$ m<p<15 $\mu$ m.

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21. (New). A display according to claim 11, wherein the liquid crystal has an orientation twist angle  $\theta$  in a range of  $\theta \le 00^{\circ}$ .

- 22. (New). A method of driving a liquid crystal electro-optical display according to claim 12, wherein the liquid crystal has an orientation twist angle  $\theta$  in a range of  $\theta \le 00^{\circ}$ .
- 23. (New). A display according to claim 13, wherein the liquid crystal molecules have an orientation twist angle  $\theta$  in a range of  $\theta \le 00^{\circ}$ .
- 24. (New). A method of driving a liquid crystal electro-optical display according to claim 15, wherein the liquid crystal molecules have an orientation twist angle  $\theta$  in a range of  $\theta \leq 300^{\circ}$ .